

WHAT IS CLAIMED IS:

- 5      *Apparatus* 1. A fixing ring for fixing a dispenser member on a neck of a receptacle containing a substance to be dispensed, said fixing ring being annular and comprising a bottom portion and top portion, said bottom portion including fixing means for fixing said ring to said neck and said top portion including an opening for the dispenser member and means for securing said member on said neck, said top portion further including at least one guide wall element extending vertically parallel to the longitudinal axis of the dispenser member and around the periphery of said fixing ring substantially in line with said fixing means of said bottom portion.
- 10     2. A fixing ring according to claim 1 wherein said fixing means of said ring are snap-fastening means.
- 15     3. A fixing ring according to claim 2 wherein said snap-fastening means of said ring are snap-fastening tabs.
- 20     4. A fixing ring according to claim 1, wherein said guide wall element is a continuous, guiding, annular crown.
- 25     5. A fixing device for fixing a dispenser member to the neck of a receptacle containing a substance to be dispensed, said device comprising: an annular fixing ring provided with snap-fastening means designed to snap-fasten to said neck of the receptacle and an annular hoop which has an inside diameter that is substantially equal to the outside diameter of the fixing ring and that can be engaged in a force fit on said fixing ring to prevent said snap-fastening means from splaying apart, said fixing ring comprising a bottom portion and a top portion, said bottom portion including said snap-fastening means for snap-fastening to said neck, said top portion including an opening for
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the dispenser member and means for holding it securely to said neck, said top portion further including at least one guide wall element extending vertically parallel to the longitudinal axis of the dispenser member around the periphery of said fixing ring and substantially in line with snap-fastening means of said bottom portion.

5           6. A fixing device according to claim 5 wherein said snap-fastening means of said ring are snap-  
10          fastening tabs.

7. A fixing device according to claim 5 wherein said guide wall element is a continuous, guiding annular crown.

15          8. A fixing device for fixing a dispenser member to the neck of a receptacle containing a substance to be disposed, said device comprising: an annular fixing ring provided with snap-fastening means designed to snap-fasten said ring to said neck of the receptacle and an annular hoop defining an annular side wall which has at least a portion with an inside diameter substantially equal to the outside diameter of the fixing ring and which can be engaged in a force fit on said fixing ring to prevent said snap-fastening means from splaying apart, said fixing ring comprising a  
20          bottom portion and a top portion, said bottom portion including said snap-fastening means for engaging said neck, said top portion including an opening for the dispenser member and means for holding it securely to said neck, said top portion further including at least one guide wall element extending vertically parallel to the longitudinal axis of the dispenser member around the periphery of said fixing ring substantially in line with said snap-fastening means of said bottom portion, said  
25          hoop including at least one projection that is located  
30          on the inside face of its side wall and that extends  
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vertically over at least a fraction of the height of said side wall, the inside diameter of said hoop at said at least one projection being slightly less than the outside diameter of said fixing ring.

5           9. A fixing device according to claim 8 wherein said snap-fastening means of said ring are snap-fastening tabs.

10          10. A fixing device according to claim 8 wherein said guide wall element is a continuous, guiding, annular crown.

11. A fixing device according to claim 8 wherein said at least one projection is a rib.

15          12. A fixing device according to claim 8 wherein said hoop has an annular side wall and wherein said at least one projection is formed by an indentation in said side wall.

20          13. A fixing device according to claim 8 wherein said hoop has an annular side wall and wherein said hoop includes a plurality of projections uniformly distributed around the inside face of said side wall.

25          14. A fixing device according to claim 8 wherein said projection is an annular shoulder extending horizontally around the inside circumference of said hoop.

15. A fixing device according to claim 8 wherein said hoop consists of a material that is harder than that of said fixing ring.

30          16. A fixing device according to claim 15 wherein said hoop consists of metal and said fixing ring consists of a plastic material.

17. A fixing device according to claim 8 wherein said at least one projection extends vertically from the top end of said hoop to a point situated more than halfway down the height of said hoop.

SHEET ONE OF FIVE

18. A fixing device for fixing a dispenser member to the neck of a receptacle containing a substance to be dispensed, the fixing device comprising:  
5 an annular fixing ring provided with snap-fastening means designed to snap-fasten said ring to said neck of the receptacle and an annular hoop having an annular side wall whose inside diameter is substantially equal to the outside diameter of said fixing ring and which can be engaged in a force fit on said fixing ring to prevent said snap-fastening means from splaying apart,  
10 said fixing ring comprising a bottom portion and a top portion, said bottom portion including said snap-fastening means for snap-fastening to said neck, said top portion including an opening for the dispenser member and means for holding it securely to said neck,  
15 said top portion further including at least one guide wall element extending vertically parallel to the longitudinal axis of the dispenser member around the periphery of said fixing ring substantially in line with said snap-fastening means of said bottom portion, said hoop including at least one projection on the inside face of its side wall, said projection extending obliquely over at least a fraction of the height of said side wall, the inside diameter of said hoop at said at  
20 least one projection being slightly less than the outside diameter of said fixing ring.  
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19. A fixing device according to claim 18 wherein said snap-fastening means of said ring are snap-fastening tabs.

30 20. A fixing device according to claim 18 wherein said guide wall element is a continuous, guiding, annular crown.

35 21. A fixing device according to claim 18 wherein the inside face of said annular side wall of said hoop is provided with a single oblique projection

extending substantially over a full turn of the circumference of said annular wall.

22. A fixing device according to claim 18 wherein the inside face of said annular side wall of said hoop is provided with a plurality of parallel oblique projections distributed around its circumference.

23. A fixing device according to claim 18 wherein said at least one projection has the form of a rib.

24. A fixing device according to claim 18 wherein said at least one projection is formed by an indentation in said hoop side wall.

25. A method of fixing a dispenser member to the neck of a receptacle containing a substance to be dispensed, the method comprising the following steps:

placing an annular fixing ring on said dispenser member, said annular fixing ring being provided at one end with snap-fastening means and at its opposite end with a guide wall extending in line with said snap-fastening means parallel to the longitudinal axis of said fixing ring;

pre-engaging an annular hoop on the guide wall of said fixing ring, the inside diameter of the hoop being substantially equal to the outside diameter of said fixing ring;

placing a subassembly comprising said dispenser member, said fixing ring, and said hoop on said neck of said receptacle;

exerting a first force F1 on the hoop which bears against the guide wall of said fixing ring and urges said fixing ring onto said neck of the receptacle, said snap-fastening means splaying apart under the effect of the force F1 prior to snap-fastening to said neck of the receptacle; and

exerting on said hoop a second force F2 that  
is greater than the first force F1, said second force F2  
being sufficient to cause said hoop to be moved down  
said ring and engaged in a force fit on said fixing ring  
5 at a final position, said hoop thus preventing said  
snap-fastening means of the fixing ring from splaying  
apart.

26. A method of fixing a dispenser member to  
the enlarged flange on the neck of a receptacle  
10 containing a substance to be dispensed, the method  
comprising the following steps:

15 placing an annular fixing ring on said  
dispenser member, said fixing ring being provided at one  
end with snap-fastening means and at its opposite end  
with a guide wall extending in line with said snap-  
fastening means parallel to the longitudinal axis of  
said fixing ring;

20 pre-engaging an annular hoop at an initial  
position on the guide wall of said fixing ring, said  
hoop having an annular side wall with an inside diameter  
substantially equal to the outside diameter of said  
fixing ring, said hoop having on the inside face of its  
side wall at least one projection extending over at  
least a fraction of the height of said side wall, the  
25 inside diameter of the hoop at said at least one  
projection being slightly less than the outside diameter  
of said fixing ring, said hoop being pre-engaged on said  
guide wall in the position where the bottom end of said  
at least one projection of said hoop bears against the  
30 top end of said guide wall of said fixing ring;

placing a subassembly comprising said  
dispenser member, said fixing ring, and said hoop on  
said neck of said receptacle;

35 exerting a first force F1 on the hoop which  
bears against the guide wall of said fixing ring via

said bottom end of said at least one projection and  
which pushes said fixing ring against the neck of the  
receptacle, said snap-fastening means splaying apart  
under the effect of the force F1 prior to snap-fastening  
5 to the enlarged flange of said neck of the receptacle;  
and

10 exerting on said hoop a second force F2  
greater than the first force F1, said second force F2  
being sufficient to cause said hoop to be moved down  
said ring and engaged in a force fit on said fixing ring  
at a final position, said hoop thereby preventing said  
snap-fastening means of the fixing ring from splaying  
apart.

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